

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1 6

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

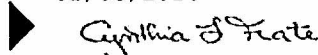
1. DATE OF ORDER 02/05/2016		2. CONTRACT NO. (If any) EP-W-13-030		6. SHIP TO: a. NAME OF CONSIGNEE Region 10	
3. ORDER NO. 0009		4. REQUISITION/REFERENCE NO.		b. STREET ADDRESS US Environmental Protection Agency 1200 Sixth Avenue, Suite 900	
5. ISSUING OFFICE (Address correspondence to) SRRPOD US Environmental Protection Agency Ariel Rios Building 1200 Pennsylvania Avenue, N. W. Mail Code: 3805R Washington DC 20460		c. CITY Seattle		d. STATE WA	e. ZIP CODE 98101
7. TO: JUDY MANLEY		f. SHIP VIA		8. TYPE OF ORDER <input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated. Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
a. NAME OF CONTRACTOR TECHLAW, INC.		b. COMPANY NAME		c. STREET ADDRESS 14500 AVION PKY STE 300 (b)(4)	
d. CITY CHANTILLY		e. STATE VA	f. ZIP CODE 201511108	10. REQUISITIONING OFFICE TIFSD	
9. ACCOUNTING AND APPROPRIATION DATA See Schedule		11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB		12. F.O.B. POINT Destination	
13. PLACE OF a. INSPECTION b. ACCEPTANCE		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	
16. DISCOUNT TERMS		17. SCHEDULE (See reverse for Rejections)			

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 116211863 ESAT R10 - TO 9 Fluidized Bed Asbestos Segregator Evaluation The contractor proposal dated 02/03/2016 is hereby accepted. Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center						\$10,167.68
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center Mail Drop D143-02 109 TW Alexander Drive						\$0.00
c. CITY Durham			d. STATE NC	e. ZIP CODE 27711		17(i) GRAND TOTAL	

22. UNITED STATES OF
AMERICA BY (Signature)

02/05/2016



ELECTRONIC
SIGNATURE

23. NAME (Typed)
Cynthia Frate
TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO

2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER

CONTRACT NO.

ORDER NO.

02/05/2016

EP-W-13-030

0009

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	<p>TOCOR: Dana M. Walker Max Expire Date: 09/04/2016 Admin Office: SRRPOD US Environmental Protection Agency Ariel Rios Building 1200 Pennsylvania Avenue, N. W. Mail Code: 3805R Washington DC 20460 Period of Performance: 02/15/2016 to 09/04/2016</p> <p>Task Order Base Period Period of Performance: 02/15/2016 to 09/04/2016 (Option Line Item) 02/15/2016</p>				10,167.68	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$10,167.68



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 LABORATORY
7411 Beach Dr. East
Port Orchard, Washington 98366**

Statement of Work - Task Order 09
ESAT Contract EP-W-13-030
Period of Performance: 02/15/2016 - 09/04/16

EPA Task Order Contracting Officer's Representative (TOCOR): Dana Walker

EPA Alternate TOCOR: Gerald Dodo

EPA Task Monitor: David L. Berry

Fluidized Bed Asbestos Segregator Evaluation

Project Background

The hazard posed by soils containing certain fibrous minerals, such as asbestos or erionite, depends on the amount of these minerals that can be suspended from the soil when it is disturbed. EPA has developed a method using a fluidized bed asbestos segregator (FBAS) for determining concentration of mineral fibers that can become airborne if the soil is disturbed. The FBAS utilizes air elutriation to separate fibrous mineral structures from heavier matrix particles and deposits them onto a filter that is analyzed by appropriate microscopic techniques such as transmission electron microscopy (TEM).

Previous research [Januch et al, 2013] has demonstrated there is an approximate linear relationship between the concentration of asbestos in performance evaluation standards (as mass percent) and the mean concentration estimated by TEM analysis following preparation by FBAS, expressed as asbestos structures captured on a filter per gram of test material. Method detection limits range from 0.002% to 0.005% by weight. The research also shows however, that recovery of asbestos fibers on a weight percent basis tends to be low when processing samples through the FBAS.

The FBAS air elutriation process maybe applicable to other soil borne mineral fibers such as erionite. Erionite is a fibrous aluminosilicate mineral known to occur in several locations in the western United States. Erionite, like asbestos, is considered to be a

carcinogen and has been implicated in a mesothelioma endemic in Turkey. Recently, EPA has been involved in site assessments in which the amount of erionite in soil need to be determined.

Traditional site assessment has involved multiple sampling and analytical techniques. EPA has relied in the past on the California Air Resources Board (CARB) method 435 for analysis of bulk soil samples for asbestos. It is an optical microscopy method with a minimum detection limit for asbestos of 0.25% based on point counting. Another method recently developed by ASTM is the Standard Test Method for Determination of Asbestos in Soil; D7521-13 also has a detection limit of 0.25% by weight but has optional procedures involving TEM analysis allow for a detection limit of 0.1 %. Comparison data on analytical sensitivity and reproducibility between these analytical methods and the FBAS method will be useful for EPA in further evaluation of options for site assessments.

Purpose

The purpose of this proposed task order (TO) is to provide technical and logistical support for completion of the FBAS recovery study. EPA needs additional data to evaluate whether asbestos recovery can be improved using modified instrument components and procedures.

Statement of Work

The contractor shall procure TEM analytical services, data review and validation services. The technical representative will determine the specifications for the services based on the data quality objectives in the quality assurance project plans (QAPP).

Task Order Management

The Contractor shall track the status of tasks and labor hours and costs for this TO and provide the TOCOR with monthly reports of the above-referenced data. The initial report shall be in a format proposed by the Contractor. EPA will review the initial report and specify changes for subsequent reports through the issuance of a TDF.

ESAT management shall meet with the TOCOR, Task Monitor(s), and other designated EPA representatives on a monthly basis or as needed, at agreed-upon times, to update EPA on the status of tasks and schedules for their completion and to address relevant administrative and technical issues.

The Contractor shall submit all deliverables required under this TO through a transmittal slip and cover letter identifying each document submitted. Each final deliverable submitted to the TOCOR or Task Monitor shall be accompanied by an "Approval Tracking Form" in a format approved by EPA. The Contractor shall also maintain a hard copy and computer file of each deliverable submitted under this TO.

The Contractor shall immediately notify the TOCOR and Task Monitor(s) as soon as it appears that schedules for the completion of any task may not be met. This notification shall be submitted via e-mail. The Contractor shall also notify the COR immediately upon learning of anything that may affect performance under this TO.

FBAS Recovery Study

To help improve FBAS recovery, modifications in FBAS design and sampling conditions will be evaluated. A prototype glass vessel with inner slope of the lower conical section increased from 45 degrees to 60 degrees will be tested to determine if more fibers are detected due to increased entrainment of particles that adhere to the lower inner surface. In addition, a static arresting device and variations in air humidity, vibration velocity, and airflow rate will be employed to eliminate or at least reduce static conditions that may cause fibers to adhere to the inner surfaces of the glass vessel.

Deliverables

Task 1- Procure TEM analytical services

- a. Contractor will arrange for analytical support at a laboratory capable of conducting TEM analysis of air samples by method ISO 10312 or 13794.

Analysis will be required for up to 4 samples in FY16.

- b. The contract laboratory will meet the specifications provided by EPA to the contractor in the QAPP and will be accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).
- c. Deliver data package to the technical representative at the EPA Region 10 Laboratory.

Task 2 – Data review and validation

- a. Contractor will arrange for qualified expert to verify and validate the analytical data generated for this study. It will consist of a data package comprised of bench sheets, TEM images, energy dispersive X-ray analysis spectra, diffraction images, and QA/QC documentation for up to 37 samples.
- b. A narrative report will be provided to the technical representative describing the results of data verification and validation.

Region 10 Laboratory Documentation

The Contractor shall comply with the most current version of the R10LAB QAM and SOPs relevant to this TO. The current versions of these documents can be found on the **R10LAB computer network drive G:**.

The Contractor shall ensure that the most current documentation versions are being used.

ATTACHMENT I

The following is a summary list of the documents the Contractor shall deliver to the Contracting Officer Representative for each data package delivered under Task Matrixes. The exact data package documents will be dependent on the analytical method and/or SOP (see individual TDFs for any additional requirements).

1. Approval Tracking Form.
2. Cover page with project narrative.
3. Completed peer review forms.
4. TDF.
5. Sample results (multi-analyte reports/data sheets) with calculated concentrations of each analyte, reporting limits, header information and qualifiers.
6. Quality control sample results, quality control parameters and control charts, if applicable.
7. All Raw data.
8. Project folder containing the laboratory support request, chain of custody, sample preparation and standards documentation.

Technology Transfer

The Contractor shall provide information to EPA personnel for the purpose of transferring knowledge of a specific analytical or QA technique or technology obtained in performing work under the ESAT contract. The TOCOR will assign Technology Transfer activities through the issuance of a TDF.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. 001		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. PR-SRRPOD-16-00096	
5. PROJECT NO. (If applicable) SOL-HQ-12-00030		6. ISSUED BY CODE SRRPOD		7. ADMINISTERED BY (If other than Item 6) CODE	
SRRPOD US Environmental Protection Agency Ariel Rios Building 1200 Pennsylvania Avenue, N. W. Mail Code: 3805R Washington DC 20460		8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) TECHLAW, INC. Attn: JUDY MANLEY 14500 AVION PKY STE 300 (b)(4) CHANTILLY VA 201511108		9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11) 10A. MODIFICATION OF CONTRACT/ORDER NO. EP-W-13-030 0009 10B. DATED (SEE ITEM 13) 02/05/2016	
CODE 116211863		FACILITY CODE		11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS	

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule Net Increase: \$10,167.66

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) B.5 Limitation of Government's Obligation

E. IMPORTANT: Contractor ☒ is not. ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 116211863

ESAT R10 - TO 9 Fluidized Bed Asbestos Segregator Evaluation

TOCOR: Dana M. Walker Max Expire Date: 09/04/2016

The purpose of this modification is to reobligate funds in the amount of \$10,167.66 to Task Order 9, funds in the amount of \$10,167.66 were deobligated from Task Order 7 of the same contract. This bring the total amount funded to \$0.00 to \$10,167.66.

LIST OF CHANGES:

Reason for Modification : Funding Only Action

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Cynthia Frate	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA (Signature of Contracting Officer)	16C. DATE SIGNED

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-W-13-030/0009/001

PAGE 2 OF 2

NAME OF OFFEROR OR CONTRACTOR
TECHLAW, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Obligated Amount for this Modification: \$10,167.66 New Total Obligated Amount for this Award: \$10,167.66 Incremental Funded Amount changed: from \$0.00 to \$10,167.66</p> <p>CHANGES FOR LINE ITEM NUMBER: 1 Obligated Amount for this modification: \$10,167.66 Incremental Funded Amount changed from \$0.00 to \$10,167.66</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 13-T-72DP-303DD2-2505-HQ00BM00-1372DP5021-001 DCN-LineID 1372DP5021-001 Amount: \$10,167.66 Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 FOB: Destination Period of Performance: 02/15/2016 to 09/04/2016</p>				